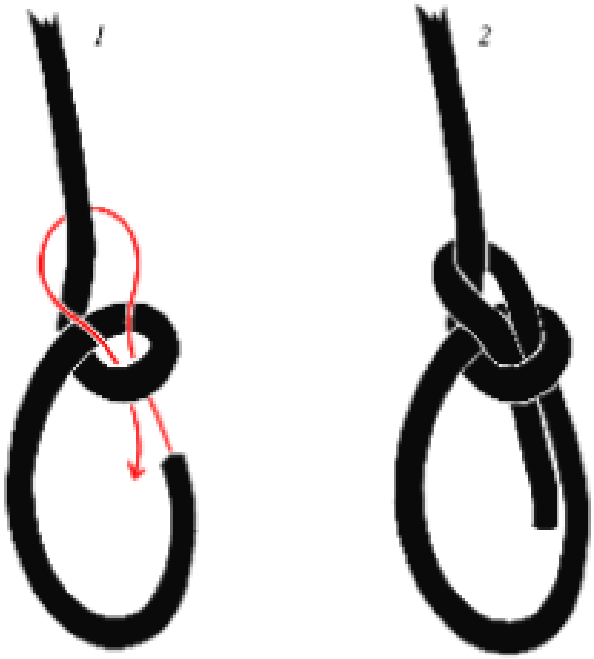
The Eight Most Important Knots for Survival Tasks:

Bowline

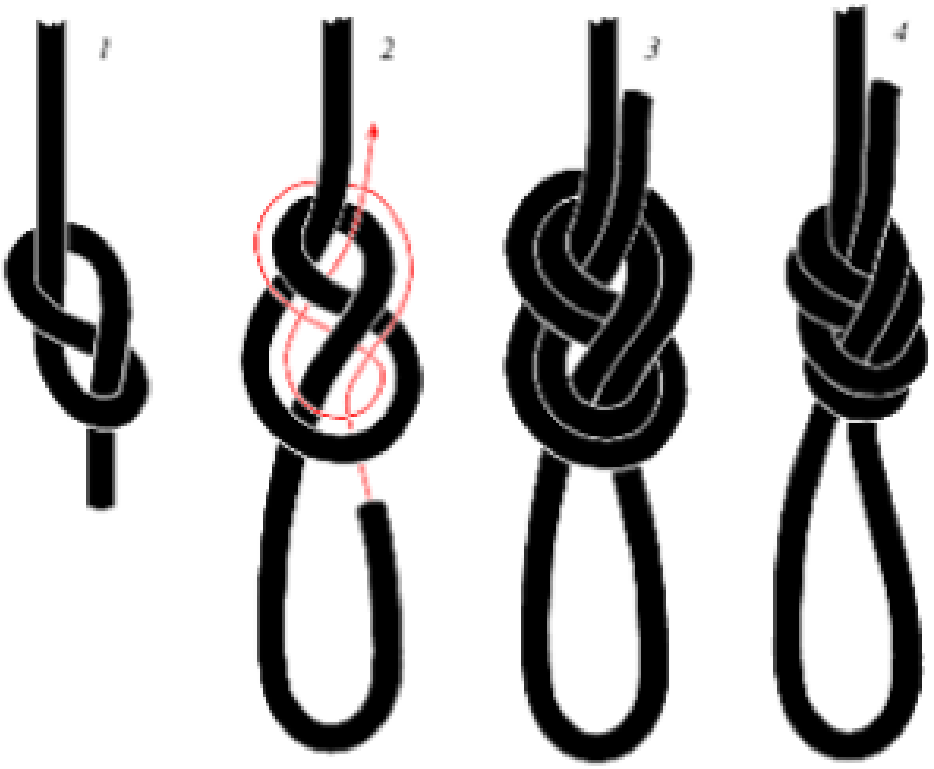
Important general-purpose loop



- Used to make a single loop in the end of a rope.
- Good for both natural-fibre and artificial-fibre rope: strong and easy to untie, even when wet and tight.
- Widely used for boating, and suitable for climbing.
- Make a loop first, then thread the end up through the loop, around the main rope, and back through the loop. (Or, as explained to generations of scouts, "the rabbit comes up out of his hole, around the tree, and back down his hole"). This is the opposite of the way the Sheet Bend is tied, (which is identical in structure).
- When complete, the end must protrude within the loop, not on the outside of it. The latter form makes the Cowboy's Bowline, which is less secure.
- The Bowline can loosen and spill, particularly in artificial-fibre rope and/or if the rope flaps around and is not under strain. To minimise this risk, the end can be tied off around the closest part of the loop, using a single or double Overhand Knot. (This will not come under any strain, so is readily untied later).
- The Bowline was so named because it was used to secure the "bow line" rope to old square sails.

Double Figure Eight

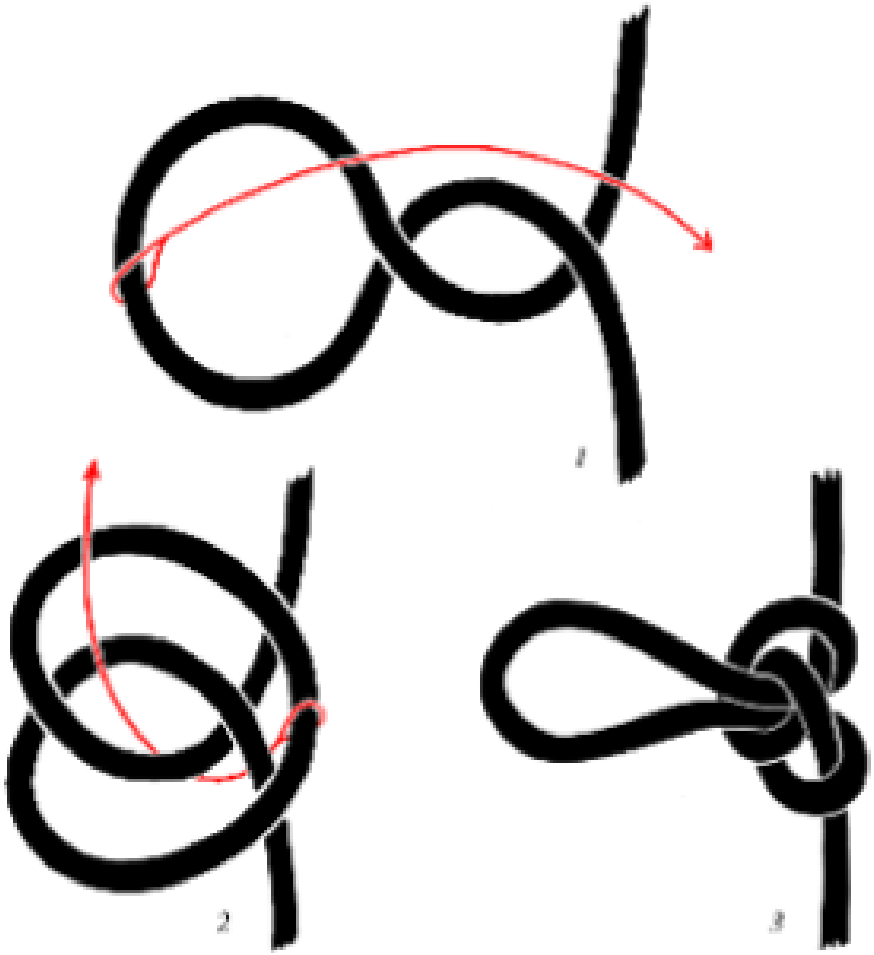
Important general-purpose loop



- Used to make a single loop in the end of a rope, or to make a loop some way along a rope.
- Good for artificial-fibre rope; strong and easy to untie, even when wet and tight. Can be hard to untie in natural-fibre rope.
- Particularly suitable for climbing and abseiling.
- The Double Figure Eight can be tied in two ways:
  - Either tie a Figure Eight (*1*) with a single thickness of rope (well back from its end), then reave the end back along itself to double the original knot (*2*). This is how you tie the loop onto a harness or a fixed object;
  - Or double the end of the rope, then tie a Figure Eight with the doubled loop.
- The Double Figure Eight can loosen and spill in artificial-fibre rope. To minimise this risk, the end can be tied off around the standing part of the rope, using a single or double Overhand Knot. (This will not come under any strain, so is readily untied later).
- Whilst often used to tie a loop some way along a rope, the Double Figure Eight is not appropriate for situations where a 3-way pull is possible. (The Alpine Butterfly Knot is best for this).
- The Double Figure Eight was so named because of its symmetrical shape, by which users can readily check that they have tied it correctly. It is more correctly called the Figure Eight on the Right, and was originally known as the Flemish Loop.

Alpine Butterfly Knot

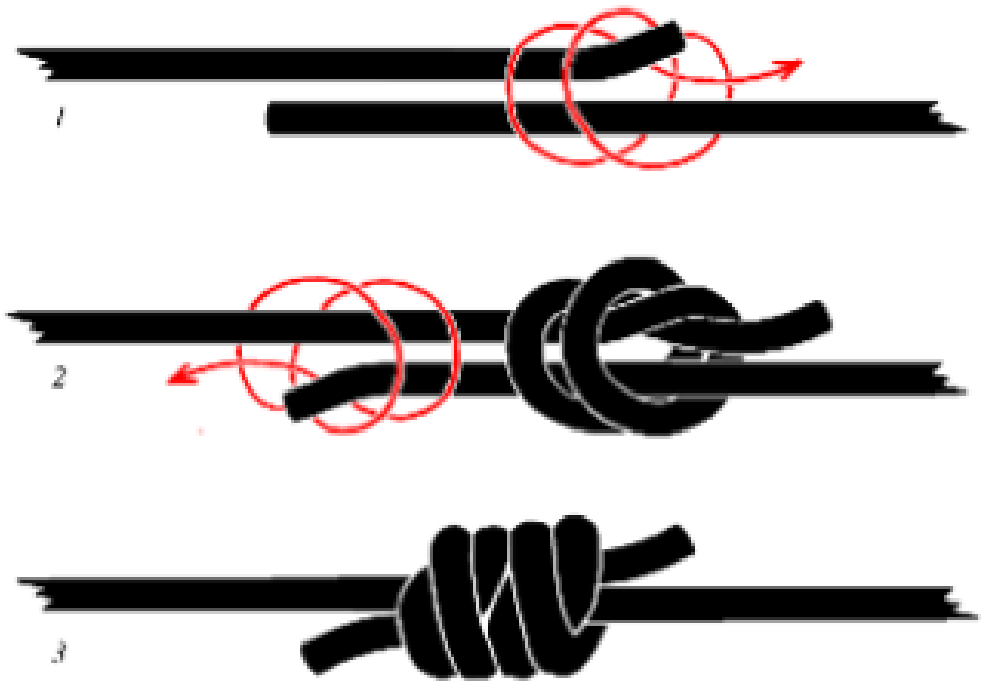
Useful special-purpose loop



- Used to make a single loop some way along a rope, particularly when the loop and the ends could each be pulled in different directions.
- Good for artificial-fibre rope; strong and easy to untie, even when wet and tight. Can be hard to untie in natural-fibre rope.
- Particularly suitable for climbing, such as when a third climber ties into a rope between two others. In such situations, when a 3-way pull is likely, it is better than a Double Figure Eight loop.
- Named for its symmetrical shape. Was once known as the Linesman's Loop.

Double Fisherman's Knot

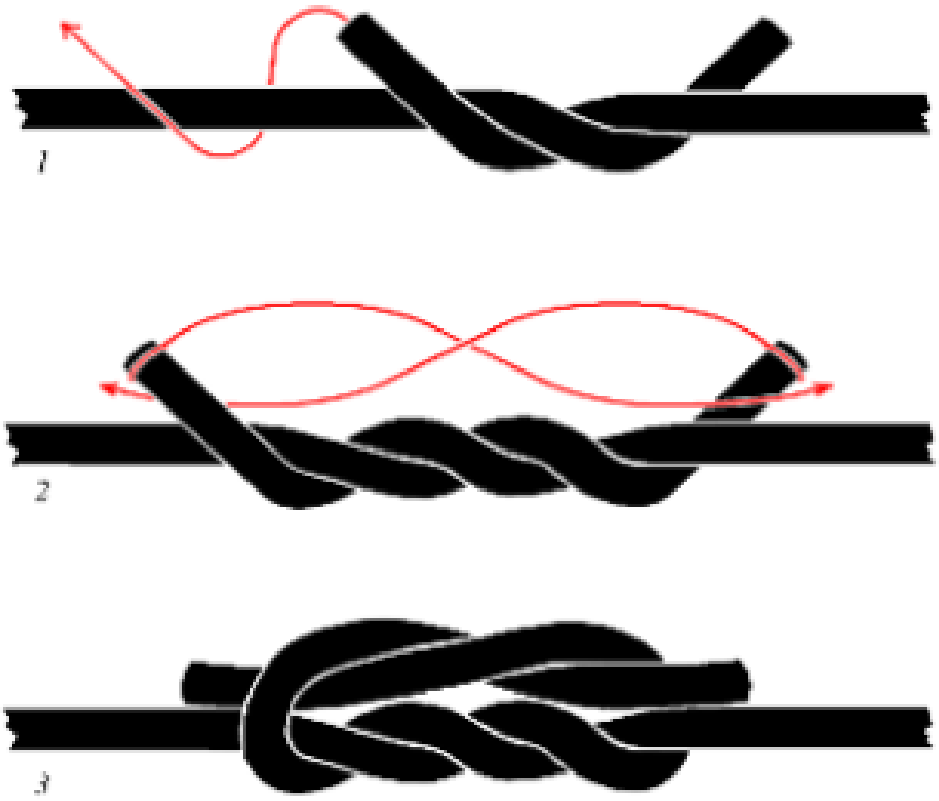
Important special-purpose bend



- Used for joining two ropes together, and is especially recommended to join climbing or caving ropes.
- Excellent for both natural and artificial-fibre ropes, whether smooth-woven or laid, wet or dry. Hence its original use by fishermen.
- Once tightened, this knot will never spill, so it is very secure. However, during tightening the ends can pull through the knot, so generous ends should be left protruding when tied.
- When joining smooth (kernmantle) ropes, it is almost always possible to untie this knot, even after considerable loading.
- Relatively bulky, and uses lots of rope, (but well worth it).
- Suitable to join ropes of uneven thickness.
- In structure, the Double Fisherman's Knot is composed of two Double Overhand Knots (or Blood Knots), each tied around the other rope.
- So-named because of its use to join fishing lines. Also called the Grapevine Knot.

Surgeon's Knot

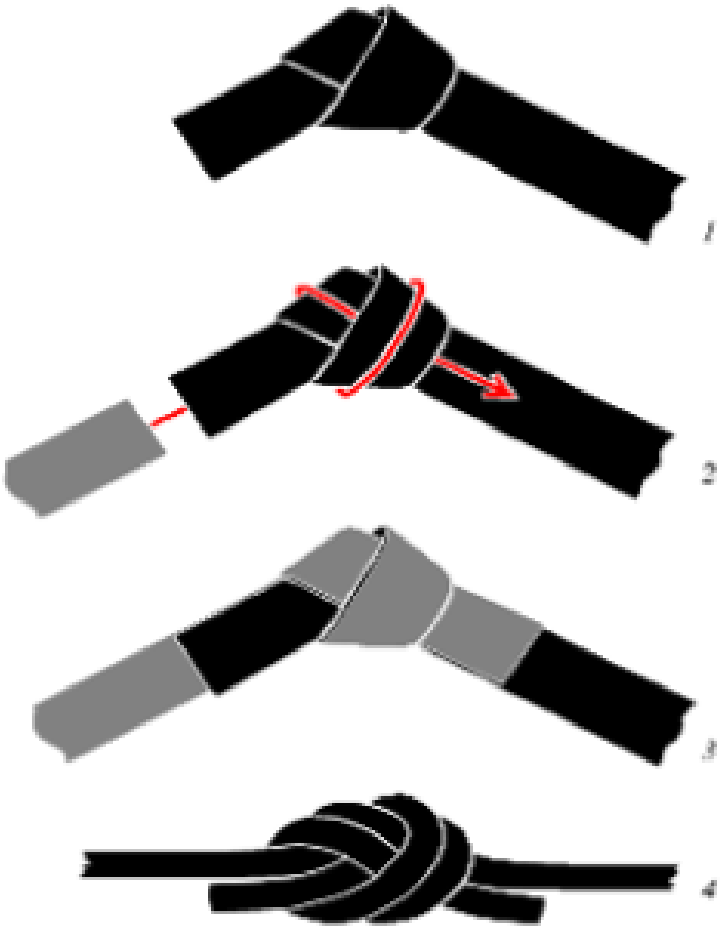
A binding knot for slippery or artificial-fibre ropes



- Used for joining two ends of slippery or artificial-fibre rope or twine that is bound around or supported by a solid body, eg tying up a parcel, or completing a lashing around spars.
- Is more secure than a Reef Knot for slippery or artificial-fibre rope.
- Is easily spilled, so it should never be used as a bend (to join two ropes).
- Can be hard to untie when wet or tight: (surgeons usually snip the stitch rather than untie it).
- The finished Surgeon's Knot is somewhat symmetrical; this is a useful visual check.
- The Surgeon's Knot is so named because it is used by surgeons to tie the ends of stitches (sutures).

Tape Knot

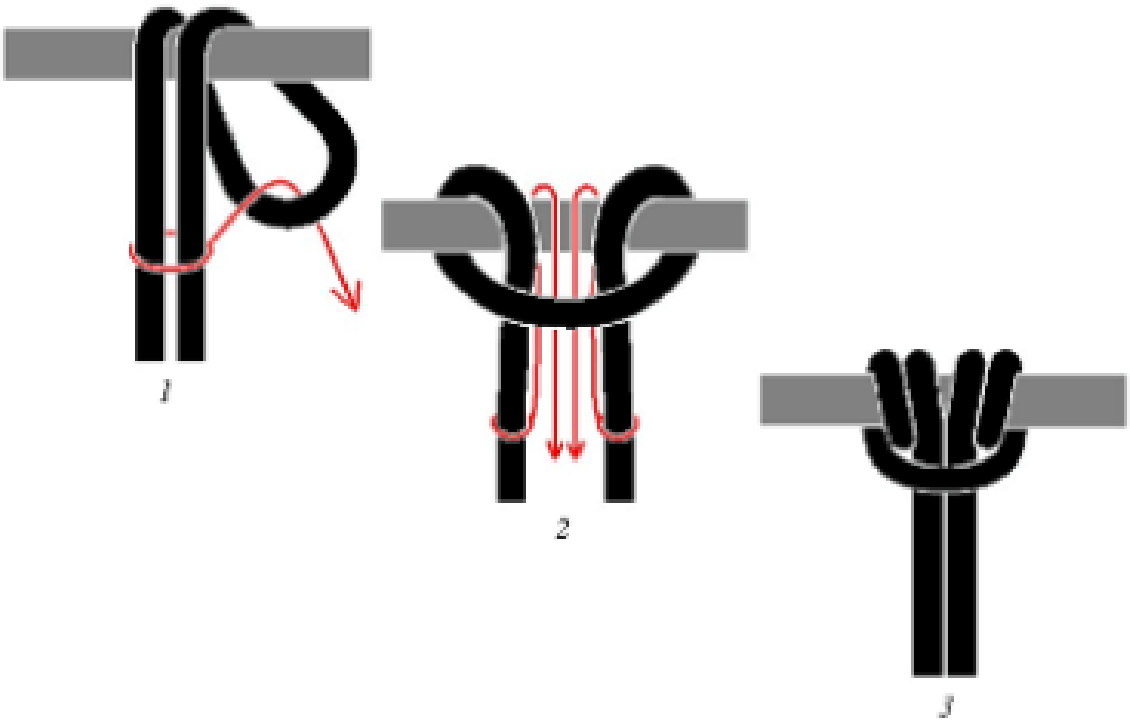
Important special-purpose bend



- Used for joining two artificial-fibre webbing tapes or belts together, particularly for joining slings when climbing and caving.
- Can be used to join ropes (instead of tape), for which the knot is very secure but almost impossible to untie if wet and tight.
- Structurally, it is simply two interlaced Overhand Knots.
- When tying, the tapes should not be twisted; their surfaces should be kept flat against one another for maximum friction.
- The Tape Knot is so named because rock climbers haven't got much imagination.
- Originally called the Ring Bend or Water Knot when tied in rope or cord by seamen or fishermen.

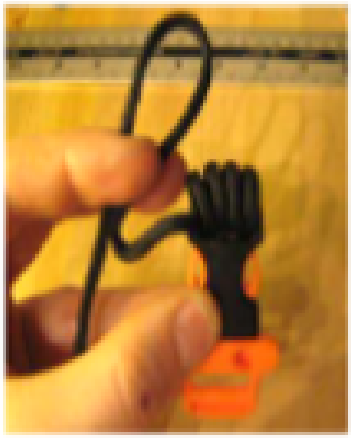
Prusik Knot

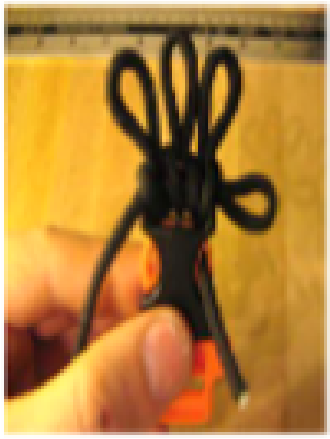
Useful special-purpose hitch

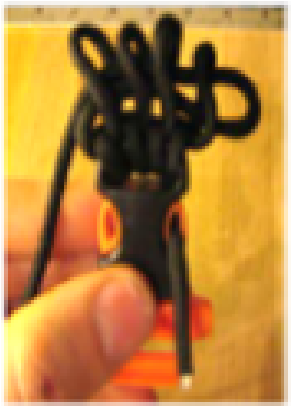


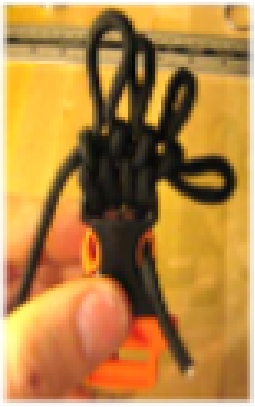
- Used for tying a loop of rope onto a spar, or onto a thicker rope that is under tension.
- The Prusik Knot grips firmly by friction when under tension, but loosens easily when un-weighted.
- For the best friction, the knot should be tied using cord that is smooth, supple, and no more than half the diameter of the rope that it is gripping.
- Most frequently used by climbers, cavers, and abseilers to climb up their main rope (eg to escape from a fall or a crevasse) using two or three small "Prusik loops" that can be alternately slid up the rope, then tighten when load is applied.
- Flagpoles, masts, or spars can be climbed in the same way.
- Also used to attach artificial-fibre ropes to a spar to commence a lashing.
- Must be used with caution:
  - Not suitable to take large loads;
  - Must be loaded gently and steadily. A shock load will cause it to slide down the main rope, generating sufficient heat to melt (and further lubricate) the surface of the loop.
- Named after Austrian mountaineer Dr Karl Prusik who popularised it.

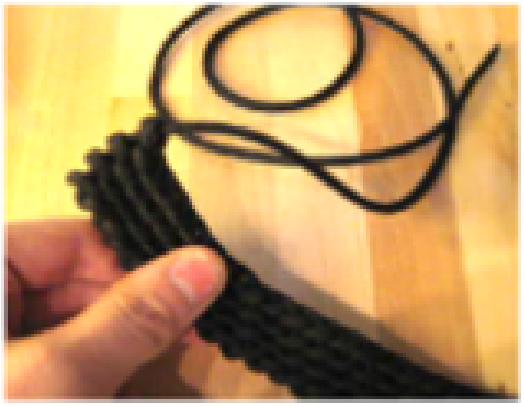
The “Easy-to-Unravel” Paracord Belt Knot:











Uses: Belt, Pack Straps, Bag Straps, Rifle Sling, Gear Sling, Suspenders, etc.

(Use two quick-release buckles, one at each end, to make it easy to remove straps.)